



# **Ichor Supplier Handbook & Code of Ethics**

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# INTRODUCTION

Ichor Supplier,

Thank you for taking the time to review the ICHOR supplier handbook. As a valued partner, it is important that we share a framework for doing business. The following is intended to supplement our contracts and terms and conditions of purchase by articulating ICHOR's commercial, compliance and ethical expectations. The guidelines within this document have been established in the best interest of Ichor suppliers, employees, shareholders, customers and the public. These guidelines are not designed to serve as a comprehensive review. Rather, they are an overview of some of the most important principles that reflect and support the way we do business. All business conducted by ICHOR employees and agents will be conducted, in all places and at all times, ethically and in conformance with applicable laws. If you have questions or are concerned regarding specific actions, please use the principles outlined here to help determine the proper course of action, or contact our Director of Procurement, Vice President of Supply Chain or Chief Operations Officer, or Chief Financial Officer.

Sincerely,

Robert DeBakker  
Senior Vice President, Global Supply Chain



## **ABOUT ICHOR SYSTEMS**

Ichor is an experienced leader in the critical subsystems and turnkey process equipment marketplace. Our capabilities enable the design and creation of a complete outsourced solution ranging from product concept to turnkey manufacturing to legacy service.

Ichor offers world-class process engineering, value added manufacturing, materials management, and testing capabilities. Our employees are strategically located to provide our customers with the highest level of customer service and support from our program management, sales, engineering, and executive management teams.

Our continued expansion of capabilities worldwide, better aligns our production facilities with our customers' supply chain strategies. This further enables our expansion into new products and markets.

Ichor is headquartered in Fremont, California with manufacturing locations in Oregon, Texas, Singapore, Malaysia and the UK. Our sales and engineering office is strategically located in Silicon Valley, California.

## WHY ICHOR?



### **ENGINEERING**

Ichor's engineering team acts as an extension of your product development teams, supporting every stage of a product's lifecycle—from concept to production to obsolescence. Customers rely on Ichor's engineering expertise to help them bring products to market. Our deep engineering expertise spans mechanical, electrical, chemical and software systems.



### **MANUFACTURING**

We have proven capabilities in plastic and stainless machining, welding, assembly, and packaging, which allow us to be a world-class source for prototyping and assembly of full-scale production units.



### **VALUE ENGINEERING**

Our core competency is value engineering. We assist customers by increasing performance and driving out cost at the design stage. We provide the greatest benefit by engaging in the earliest stages of your development process. This partnership enables our customers to achieve optimized designs while accelerating time to market.



### **DESIGN-BUILD SOLUTIONS**

Any new product in today's market must be innovative, flexible and efficient. To meet these demands, a project's goals must be properly defined to create optimum results. As a strategic partner, Ichor can help identify these important requirements during the earliest stages of your product's development. Ichor's customers are able to outsource all non-critical elements of their tool design, production and support in order to focus their resources on process and technology improvement.



### **REFURBISHMENT**

We provide expert refurbishment, design engineering and field services to the global semiconductor equipment market.



# SUPPLIER CODE OF CONDUCT

This Supplier Code of Conduct and Business Practices applies to all suppliers of Ichor and its subsidiaries. It is essential that these business practices become the basis for all our business relationships.

## HONEST AND ETHICAL CONDUCT

It is Ichor's policy to promote high standards of integrity by conducting our affairs in an honest and ethical manner. Ichor's integrity and reputation depend on the honesty, fairness and integrity of each supplier associated with us. Unyielding integrity is the foundation of corporate integrity and a fundamental expectation of this Code of Conduct.

## COMPLIANCE WITH LAWS AND FAIR DEALING

Each supplier to ICHOR shall comply with all applicable laws, rules and regulations and shall endeavor to deal fairly and in good faith with Ichor customers, shareholders, employees, suppliers, regulators, business partners, competitors and others.

## CONFLICT OF INTEREST

Conflicts of interest can be viewed as any activities that are inconsistent with or opposed to the best interests of Ichor, or any activities that give the appearance of impropriety. Suppliers should note that Ichor employees have an affirmative duty to avoid situations where their loyalties may be divided between Ichor's interests and their own interests. In this regard, suppliers and Ichor employees should avoid even the appearance of impropriety.

## FINANCIAL INTERESTS IN OTHER BUSINESSES

Ichor employees may not own a financial interest in any Ichor supplier (other than small amounts of stocks or bonds in publicly-traded companies) that might cause divided loyalty or even the appearance of divided loyalty.

## PAYMENT FOR OUTSIDE PARTIES

Ichor employees and member of their immediate families may not accept any gift, payment, loan or other favor from an Ichor supplier.

## IMPROPER PAYMENTS

Ichor suppliers should not directly or indirectly offer solicit, or receive any kind of improper payments or contributions for the purpose of: (i) influencing Ichor employees; (ii) obtaining or keeping business; (iii) persuading employees of another company to fail to perform or inadequately perform their duties.

## ANTI-CORRUPTION

ICHOR is subject to the provisions of the US Foreign Corrupt Practices Act of 1977 (“FCPA”) which requires accounting transparency and prohibits bribery of foreign officials. It is illegal for ICHOR or an agent of ICHOR to offer anything, or cause anything of value to be offered, as a bribe, including cash or non-cash items. As a matter of policy, ICHOR extends this requirement to its Suppliers.

Supplier must ensure that it and its employees are familiar with and will strictly comply with FCPA and all other applicable US and international laws and regulations relating to anti-bribery and anti-corruption. Suppliers shall ensure that their employees and agents do not promise, offer, authorize, give or accept bribes or anything of value, either directly or indirectly through a third party, in order to obtain or retain business, direct business to any person, or otherwise gain an improper advantage. All business dealings should be transparently performed and accurately reflected in Suppliers’ business books and records. Suppliers shall implement monitoring and enforcement procedures to ensure compliance with anti-corruption laws.

## LABOR

Suppliers shall not use forced, bonded (including debt bondage) or indentured labor, involuntary prison labor, or engage in slavery or trafficking of persons. All work must be voluntary and workers shall be free to leave work at any time or terminate their employment. Suppliers shall not use child labor in any stage of manufacturing or other operations. The term “child” refers to any person under the age of fifteen (15), or under the age for completing compulsory education, or under the minimum age for employment in the applicable country, whichever is greatest. Exceptions may be made for use of legitimate workplace learning programs that comply with all applicable laws and regulations.

## FAIR LABOR STANDARDS ACT COMPLIANCE

Suppliers subject to U. S. Department of Labor regulations and orders shall agree and certify that the goods manufactured and supplied to ICHOR are produced in compliance with all applicable requirements of the Fair Labor Standards Act of 1938.



## COMPLIANCE

### ENVIRONMENT COMPLIANCE

Federal law imposes criminal liability on any person or company that contaminates the environment with any hazardous substance that could cause injury to the community or environment. Ichor is committed to reduce its use of hazardous materials, conserving natural resources and reducing the environmental impact of waste generations. Ichor insists upon safe handling of hazardous materials by employees, customers and suppliers to prevent regulatory violations, which can lead to fines or imprisonment.

### RoHS & WEEE

The Reduction of Hazardous Substances (RoHS) Directive is intended to restrict the use of certain hazardous substances in electrical and electronic equipment. It is closely linked with the Waste Electrical and Electronic Equipment Directive (WEEE) which sets collection, recycling and recovery targets for electrical goods and is part of a legislative initiative to solve the problem of large amounts of toxic e-waste. The RoHS directive applies to equipment as defined by a section of the WEEE directive, to include Semiconductor devices, electronics and electrical equipment. These initiatives increase the protection of human health and aids the environmentally-sound recovery and disposal of electrical and electronic equipment waste.

Ichor requires that the supplier provide Notification of Compliance to the RoHS and WEEE Directives. Compliance is the responsibility of the supplier that places the product on the market, as defined in the Directive. Data on substance concentrations should be transferred through the supply chain to the final producer. An IPC standard has been developed and published to facilitate this data exchange, IPC-1752.

### CONFLICT MINERALS

Ichor maintains an active conflict mineral monitoring and compliance process. Per Article 1502 of US Dodd-Frank Wall Street Reform and Consumer Protection Act: Buyer is committed to supply chain initiatives and overall corporate social responsibility that works towards a conflict free supply chain. Supplier is required to take appropriate due diligence to identify their supply chain and associated country of origin for minerals known to directly or indirectly finance or benefit armed militant groups in the Democratic Republic of Congo or adjoining countries. Upon request, supplier shall disclose the details of such due diligence and shall only source minerals from responsible sources.



## MSDS REQUIREMENTS

For any product containing a hazardous substance, supplier shall provide Ichor, immediately upon acceptance of an ICHOR purchase order, a complete material safety data sheet (MSDS) for each hazardous substance for which an MSDS is required by 29 C.F.R. § 1910.1200 and any similar information required by applicable laws and regulations in effect at the time of acceptance of this purchase order.

## OCCUPATIONAL SAFETY

Suppliers shall control worker exposure to potential safety hazards (e.g., electrical and other energy sources, fire, vehicle, and slip and fall hazards) through proper design, engineering and administrative controls, preventative maintenance and safe work procedures (including lock out/tagout), personal protective equipment, and ongoing safety training. Suppliers will encourage workers to raise safety concerns.

## U.S. GOVERNMENT PROCUREMENTS

Suppliers should note that ICHOR is a U.S. federal and state government contractor and therefore, ICHOR and its Suppliers are subject to the most recent applicable regulations and rules promulgated by the U.S. Department of Labor, Office of Federal Contract Compliance Programs (“OFCCP”), including a legal requirement that hiring practices of contractors and subcontracts take affirmative action and not discriminate on the basis of race, color, sex, sexual orientation, gender identity, religion, national origin, disability, or status as a protected veteran.

## NOTIFICATION OF PRODUCT CHANGE OBSOLESCENCE AND COPY EXACT COMPLIANCE

With the ongoing consolidation within our customer base, and the increasing technical imperatives of precise configurations in the products we manufacture for those customers, we have elected to enhance our accountability systems to ensure long-term product continuity as it relates to Obsolete Parts and Copy Exact manufacturing.

As such, we have initiated a program to improve our management of the product life cycle to support all production for Ichor's entire customer base, to include both new and spare parts.

### **Program Goals:**

1. To maintain product continuity in support of our customers' more stringent technology shifts and requirements (e.g. process of record, product stabilization, copy exactly, supplier notification forms, etc...)
2. To secure sufficient notice of impending component obsolescence
3. To proactively drive solutions to resolve the impact of obsolescence and non-compliance to copy exact
4. To avoid adverse cost, delivery and quality impacts of these solutions.

### **Supplier Requirements:**

1. Full compliance is expected from all suppliers, and will be a condition of remaining and/or becoming an Ichor Preferred Supplier a. Failure to comply will impact your ability to conduct business with Ichor for current and/or future product awards
2. Formal notification of part obsolescence via Ichor's process is outlined in the Supplier Requirements Document CQA3-74009 a. 240-day advanced notification requirement of part obsolescence
  - a. Notification is deemed complete when you have: i. discussed the obsolescence issue with your Ichor Corporate Supply Chain Management contact or the (supporting) Site Quality Manager
  - b. Submitted a completed Supplier Problem Sheet (SPS), form number QA4-1303, as outlined in the Ichor Supplier Problem Process (QA3-1311) detailing the obsolescence issue and recommended course of action or solution.



# GENERAL EXPECTATIONS

## PROPRIETARY INFORMATION & NON-DISCLOSURE AGREEMENT

All suppliers are responsible for protecting the confidentiality of proprietary and other confidential information and trade secrets of Ichor, its customers and vendors. “Proprietary and other confidential information” includes, but is not limited to, technologies, product or marketing strategies, areas of research, new product development data, production data and descriptions, sales data, information about customers or vendors, and customer or vendor-supplied information.

A non-disclosure agreement (NDA) is required to protect both Ichor and our suppliers in the event that confidential information is exchanged. The NDA must be in place prior to the exchange of confidential information.

## ON TIME DELIVERY

ICHOR measures on time delivery as any order which arrives no sooner than 7 calendar days early and 0 day late to the promised and requested delivery date. On time delivery to request is a measure of the supplier’s ability to support Ichor’s need by date. On time delivery to request is measured with the intent to identify suppliers that are flexible in supporting the volatile demands of Ichor’s end customers. On time to promise is a measure of the supplier’s ability to meet a commitment.

## DATA SYSTEM CONTROLS

Ichor suppliers should implement and maintain controls that assure data availability and prevent leakage of confidential information.

This should entail specific consideration for cyber-security and sufficient control to, at a minimum:

- Ensure systems and information are available when needed, including appropriate backups
- Reduce the risk of compromise of ICHOR’s confidential information, including:
  - confidential personnel information
  - intellectual property
  - proprietary business data

## PURCHASE ORDER CONFIRMATIONS AND RESCHEDULES

Suppliers must receive a PO from Ichor for all purchase items or services prior to shipment or in the case of services, start of work. The due date on the PO represents the date the material is required to dock at the ship-to address on the PO. Suppliers are expected to acknowledge receipt of the PO and provide a confirmed delivery date for the full material quantity within two business days. If the supplier is unable to meet the requested quantity, price, or due date, Ichor must be informed immediately upon discovery to confirm a new delivery schedule. Additionally, items not supporting Ichor's requirements date must be justified through supplier provision of explanation of constraining factors. Labor, materials, capacity, documentation, or other.

Suppliers will receive reschedule reports from Ichor buyer or through Ichor's supplier portal. Suppliers are expected to acknowledge receipt of and confirm back new delivery dates within two business days of receipt. If the supplier is unable to meet the required delivery date Ichor must be informed immediately upon discovery to confirm a new delivery schedule. Additionally, items not supporting Ichor's requirements date must be justified through supplier provision of explanation of constraining factors. Labor, materials, capacity, etc.

## PAYMENT TERMS

Ichor standard payment terms are Net 60, or discount terms which are due upon the later receipt of a correct invoice or receipt of the product(s). Payment terms are as reflected on Ichor purchase orders.

## SHIPMENT METHODS AND TITLE TRANSFER

Ichor Standard shipment terms are Ex-works/ Ex-Factory. Shipments are to be made on an Ichor account, consistent with Ichor's Supplier Routing Guide (available upon request from an Ichor Purchasing agent) and the shipping method listed on the PO. If a change in shipping method is required to achieve OTD, contact the Ichor buyer for approval and instructions. Generally, it is expected that suppliers shall bear all delivery cost and risk for parts ordered at lead time and requiring expedited freight to meet Ichor's requested dock date. For any other issues or questions regarding shipment methods, contact the Ichor buyer.

Risk of loss will transfer to Ichor at point of shipment, Title will remain with the seller until delivery to Ichor System's designated location.

## TERMS & CONDITIONS

Unless otherwise agreed in writing, Ichor's standard Purchasing Terms and Conditions (T&Cs) apply to all purchase orders and business agreements. Purchase order confirmation constitutes acceptance of the applicable T&Cs. A copy of the current T&Cs can be found on Ichor's website and or with the submission of an Ichor purchase order.

## PART QUALIFICATION DUE TO A CHANGE PROPOSED BY A SUPPLIER

A change in manufacturing of material, product or service that results in a change in form, fit or function, which may include the following:

- A new material, service or product supplier
- A new material, service or product not previously supplied to ICHOR
- A material, service, or product modified by an engineering change
- Re-qualification of material, service, or product which was disqualified due to a major quality problem
- A change in material
- Source change
- Change in site of manufacturer
- Change in quality conformance procedure
- Change in handling, packaging, or storage methods

## SUPPLIER WAIVER / DEVIATION REQUEST

Suppliers may request (in writing) a SPS (Supplier Problem Sheet) from Ichor for minor non-conformances where the product may not completely meet Ichor requirements, but fit, form, or function are not impacted. Ichor is under no obligation to approve such requests. All approved requests will be communicated by Ichor to supplier via Ichor's SPS process (QA4-I 303). Suppliers may not make changes without receipt of Ichor SPS form.

## PURCHASE SPECIFICATIONS

Ichor has various product specifications, which will be provided to suppliers and referred to on purchase orders when applicable. Suppliers may only accept changes to the purchase specifications when Ichor communicates changes through a revised purchase order or via a signed Ichor SPS form.

## MATERIAL CERTIFICATIONS

Material Certificates of Conformance (C of C) may be required for critical suppliers on a corrective action plan (CAP), or when requested (in writing), by Ichor. The C of C, when required, must be included with each shipment to Ichor, and must include the following information:

- Manufacturer's name and address
- Item number/supplier part number
- Lot/date code(s) as applicable
- Quantity in shipment
- Statement certifying product conformance and traceability
- Name and date of transaction
- Purchase order number
- Specification number and revision
- Drawing number, if applicable
- Signature of a supplier technical or quality
- Representative, with typed name, title, and date the certification was signed off. The signer must be competent to certify that the product meet specifications and assume product quality responsibility for supplier

## NONCONFORMING MATERIAL

Material that does not meet Ichor specifications, is not fit for use, or at the sole discretion of Ichor, is deemed to be nonconforming. Ichor will not accept material that does not conform to specified requirements or is not fit for use. Nonconforming material may be rejected and returned to the supplier for credit, replacement or rework. Nonconforming material will be identified through Ichor incoming inspection, in-line rejection, customer returns, alerts or supplier recalls.

Ichor will have reasonable time to complete acceptance testing and notify the supplier of rejection. Ichor's payment or delivery receipt does not constitute acceptance of the products. Ichor will determine the level of response required for nonconforming product. Examples include:

- Supplier Corrective Action Request (SCAR)
- Formally issued complaint (in writing) to the supplier.
- Rejection of material - material will be shipped back to supplier, or with supplier's permission, to a 3rd party for repair or replacement. Corrective Action Plan (CAP) - may include: Target area of improvement, documented improvement plan, goals, ownership, timelines, measurement reliability, control plans, and effectiveness verification. 8D format is required.
- Ichor expects the supplier to prioritize Rework / Replacement / Credit for nonconforming material and to close all returns at a lead time no greater than 2x (two times) the quoted standard product lead time.

## ADVERTISING

Seller shall not use buyer's name or logo or refer to buyer directly or indirectly in any advertisement, sales presentation, press or news release without buyer's prior written approval.

## COUNTERFEIT PARTS

Ichor expects all suppliers to use non-counterfeit materials and components for products delivered to Ichor. Supplier is expected to purchase materials and components directly from their manufacturers or authorized distributors and establish and follow a process ensuring their authenticity. Suppliers are also expected to make available to Ichor, on request, evidence that proves to Ichor's satisfaction the authenticity of relevant materials and components.



# SUPPLIER MANAGEMENT

All suppliers are expected to perform and compete on a basis of cost, quality and delivery. Ichor's supplier management process provides for a select set of suppliers based on spend, criticality of items provided and volume of business to fall under our active supplier management system. This process measures suppliers on cost competitiveness, quality, delivery performance as well as alignment and support of Ichor design and development activities. Suppliers falling under the supplier management process are expected to complete a risk assessment to identify supply chain weak points to guide improvement plans. The risk assessment spans multiple elements such as capacity, financial health, raw materials, and production control systems. Actively managed suppliers are provided with score cards bi-annually containing both objective and subjective feedback on their performance and risk assessment. Suppliers are expected to develop and execute plans resulting in demonstrated improvements to all areas measured.

## SUPPLIER QUALIFICATION

Ichor maintains an ISO: 9001:2015 certification and relevant processes for supplier qualification. Suppliers are evaluated on alignment to Ichor commercial terms, delivery capability, quality management systems, operational capability, geographic support, financial health and competitive cost. Ichor's supplier qualification process varies depending on the nature of the service or product provided. Ichor Buyers, Supply Chain Managers, and Supply Chain Engineers are responsible to ensure suppliers are qualified per Ichor process requirements.

## FIRST ARTICLE

Upon request, suppliers with new build-to-print parts will submit first articles to Ichor for review and approval. Suppliers are responsible for documenting verification results for all parameters, and providing this documentation with the part submission.

## PART QUALIFICATION REQUIREMENTS

Qualification may be required prior to the first production shipment in the following situations:

- ▮ A new material, service, or product supplier
- ▮ A new material, service, or product not previously supplied to ICHOR
- ▮ A material, service, or product modified by an engineering change
- ▮ Re-qualification of material, service, or product, which was disqualified due to a major quality issue

## BUSINESS CONTINUITY PLANS

Business continuity plans are intended to keep businesses functional through interruptions of any kind, such as power failures, IT system crashes or natural disasters. Suppliers are expected to maintain supply



risk and business continuity plans to ensure that critical functions/services can be performed in the event of an unexpected interruption. The plan scope should include the suppliers, workforce, related resources, and manufacturing sites, including infrastructure, production and test equipment.

The plan should ensure that: Sufficient, actively managed, risk mitigation plans are in place to prevent significant slowdown or stoppage of supplied products or services to Ichor. Additionally, the supplier should ensure a ready-to-implement response plan is in place to ensure business continuity is quickly reestablished if business continuity is jeopardized or halted.

Ichor assesses supplier Business Continuity Plans as defined in the Corporate Supplier Risk Assessment Process CSCM3-51002 and the related process documents and forms. Suppliers subject to assessment are defined in Ichor's Supplier Management Corporate Procedure C3CM2-51002 which provides for ensuring assessment of all Ichor controlled suppliers and suppliers who are defined as critical.

### **CRITICAL / KEY SUPPLIERS**

Ichor defines key suppliers as those who provide a strategic item that is critical to quality of a product, is sole sourced and/or would require significant time and effort to qualify an alternative source; and/or suppliers who are deemed critical to Ichor success and contribute significantly to achieving our business objectives.